

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, the process comprising dehydrofluorinating the aromatic carbamoyl fluoride by gradually introducing the aromatic carbamoyl fluoride in a dissolved or finely dispersed state in a solvent into a solvent heel at a temperature of at least 80°C to obtain the corresponding isocyanate, where the solvent heel comprises hydrofluoric acid and where the introduction controls the ratio of hydrofluoric acid, including free hydrofluoric acid and hydrofluoric acid added to isocyanate groups, to isocyanate functional groups, real or masked in carbamoyl fluoride form.

2. (Previously Presented) The process as claimed in Claim 1, wherein the temperature of the solvent heel is at most equal to 150°C .

3. (Previously Presented) The process as claimed in Claim 1, wherein said solvent exhibits a boiling point of at least 100°C.

4. (Previously Presented) The process as claimed in Claim 1, wherein the reaction is carried out at a pressure such that, at the reaction temperature, the solvent is boiling.

5. (Previously Presented) The process as claimed in Claim 1, wherein the solvent is miscible with hydrofluoric acid and does not react with the carbamoyl fluoride.

6. (Previously Presented) The process as claimed in Claim 1, wherein said carbamoyl fluoride is introduced into the solvent with hydrofluoric acid.

7. (Canceled)

8. Canceled

9. (Previously Presented) The process as claimed in Claim 1, wherein the addition of the carbamoyl fluoride to the solvent is carried out at a rate such that, in the ten final 90% of the reaction duration taking place below 100°C, the molar ratio of hydrofluoric acid to isocyanate (HF acid/aromatic isocyanate) is always less than 0.5.

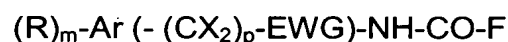
10. (Previously Presented) The process as claimed in Claim 1, wherein the carbamoyl fluoride substrate comprises an aliphatic carbon, that is sp^3 hybridized, bearing at least two fluorines.

11. (Previously Presented) The process as claimed in Claim 10, wherein said aliphatic carbon bearing at least two fluorines is a benzyl carbon and is directly attached to an aromatic ring.

12. (Previously Presented) The process as claimed in Claim 11, wherein said aromatic ring is that bearing the nitrogen of the carbamoyl functional group.

13. (Previously Presented) The process as claimed in Claim 1, wherein the reaction mixture comprises less than 1%, with respect to the starting carbamoyl fluoride, expressed as moles, of impurities exhibiting a chlorine in the benzyl position.

14. (Previously Presented) The process as claimed in Claim 1, wherein the carbamoyl fluoride corresponds to the formula:



where:

- Ar is an aromatic residue;
- the X units, which are alike or different, represent a fluorine or a radical of formula C_nF_{2n+1} with n an integer at most equal to 5;
- p represents an integer at most equal to 2;
- EWG represents a hydrocarbonaceous group or an electron-withdrawing group, the optional functional groups of which are inert under the reaction conditions;

the total carbon number of $\text{-(CX}_2\text{)}_p\text{-EWG}$ is between 1 and 15;

- m is 0 or an integer from 1 to 4;
- R represents alike or different radicals comprising halogens or hydrocarbonaceous radicals.

15. (Previously Presented) The process as claimed in Claim 1, wherein the solvent is a chlorobenzene.

16. (Previously Presented) The process as claimed in Claim 15, wherein the chlorobenzene is a monochlorobenzene, a dichlorobenzene or a trichlorobenzene.

17. (Previously Presented) A dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, the process comprising dehydrofluorinating the aromatic carbamoyl fluoride by subjecting the aromatic carbamoyl fluoride to a temperature at least equal to 80°C by gradually introducing the aromatic carbamoyl fluoride in a dissolved or finely disposed state in a solvent at a temperature of at least 80°C to obtain the corresponding isocyanate, wherein the carbamoyl fluoride is introduced into the solvent with hydrofluoric acid in the form of a solution comprising anhydrous hydrofluoric acid, wherein the introduction controls the ratio of hydrofluoric acid, including free hydrofluoric acid and hydrofluoric acid added to isocyanate groups, to isocyanate functional groups, real or masked in carbamoyl fluoride form.

18. (Previously Presented) A dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, the process comprising dehydrofluorinating the aromatic carbamoyl fluoride by subjecting the aromatic carbamoyl fluoride to a temperature at least equal to 80°C by gradually introducing the aromatic carbamoyl fluoride in a dissolved or finely disposed state in a solvent at a temperature of at least 80°C, wherein the introduction controls the ratio of hydrofluoric acid, including free hydrofluoric acid and hydrofluoric acid added to isocyanate groups, to isocyanate functional groups, real or masked in carbamoyl fluoride form, to obtain the corresponding isocyanate so that the total yield of the corresponding isocyanate is at least about 70%.

19. (Previously Presented) A dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, the process comprising dehydrofluorinating the aromatic carbamoyl fluoride by gradually introducing the aromatic carbamoyl fluoride in a dissolved or finely dispersed state with hydrofluoric acid in a solvent into a solvent heel at a temperature of at least 80°C to obtain the corresponding isocyanate, wherein during introduction of the carbamoyl fluoride, the ratio of hydrofluoric acid to carbamoyl fluoride is at least equal to 2.

20. (Previously Presented) The process of Claim 19, wherein the ratio of hydrofluoric acid to carbamoyl fluoride is at least equal to 3.

21. (Previously Presented) The process of Claim 19, wherein the ratio of hydrofluoric acid to carbamoyl fluoride is at least equal to 4.

22. (Currently Amended) A dehydrofluorination process to convert an aromatic carbamoyl fluoride to the corresponding isocyanate, the process comprising dehydrofluorinating the aromatic carbamoyl fluoride by gradually introducing the aromatic carbamoyl fluoride in a dissolved or finely dispersed state with hydrofluoric acid in a solvent into a solvent heel at a temperature of at least 80°C, to obtain the corresponding isocyanate, wherein the ratio of hydrofluoric acid, including free hydrofluoric acid and added hydrofluoric acid, to isocyanate groups, real or masked in carbamoyl fluoride form, is at most equal to ~~5~~ 0.5.

23. (Previously Presented) The process of Claim 22, wherein the ratio of hydrofluoric acid to isocyanate groups is at most equal to 0.3.

24. (Previously Presented) The process of Claim 22, wherein the ratio of hydrofluoric acid to isocyanate groups is at most equal to 0.1.

25. (Previously Presented) The process as claimed in Claim 19, wherein the temperature of the solvent heel is at most equal to 150°C.

26. (Previously Presented) The process as claimed in Claim 19, wherein said solvent exhibits a boiling point of at least 100°C.

27. (Previously Presented) The process as claimed in Claim 19, wherein the reaction is carried out at a pressure such that, at the reaction temperature, the solvent is boiling.

28. (Previously Presented) The process as claimed in Claim 19, wherein the solvent is miscible with hydrofluoric acid and does not react with the carbamoyl fluoride.

29. (Previously Presented) The process as claimed in Claim 19, wherein said carbamoyl fluoride is introduced into the solvent with hydrofluoric acid.

30. (Previously Presented) The process as claimed in Claim 19, wherein the addition of the carbamoyl fluoride to the solvent is carried out at a rate such that, in the final 10% of the reaction duration taking place below 100°C, the molar ratio of hydrofluoric acid to isocyanate (HF acid/aromatic isocyanate) is always less than 0.5.

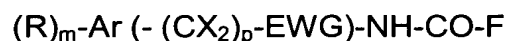
31. (Previously Presented) The process as claimed in Claim 19, wherein the carbamoyl fluoride substrate comprises an aliphatic carbon, that is sp^3 hybridized, bearing at least two fluorines.

32. (Previously Presented) The process as claimed in Claim 31, wherein said aliphatic carbon bearing at least two fluorines is a benzyl carbon and is directly attached to an aromatic ring.

33. (Previously Presented) The process as claimed in Claim 32, wherein said aromatic ring is that bearing the nitrogen of the carbamoyl functional group.

34. (Previously Presented) The process as claimed in Claim 19, wherein the reaction mixture comprises less than 1%, with respect to the starting carbamoyl fluoride, expressed as moles, of impurities exhibiting a chlorine in the benzyl position.

35. (Previously Presented) The process as claimed in Claim 19, wherein the carbamoyl fluoride corresponds to the formula:



where:

- Ar is an aromatic residue;
 - the X units, which are alike or different, represent a fluorine or a radical of formula $\text{C}_n\text{F}_{2n+1}$ with n an integer at most equal to 5;
 - p represents an integer at most equal to 2;
 - EWG represents a hydrocarbonaceous group or an electron-withdrawing group, the optional functional groups of which are inert under the reaction conditions;
- the total carbon number of $-(\text{CX}_2)_p\text{-EWG}$ is between 1 and 15;
- m is 0 or an integer from 1 to 4;
 - R represents alike or different radicals comprising halogens or hydrocarbonaceous radicals.

36. (Previously Presented) The process as claimed in Claim 19, wherein the solvent is a chlorobenzene.

37. (Previously Presented) The process as claimed in Claim 36, wherein the chlorobenzene is a monochlorobenzene, a dichlorobenzene or a trichlorobenzene.

38. (Previously Presented) The process as claimed in Claim 22, wherein the temperature of the solvent heel is at most equal to 150°C.

39. (Previously Presented) The process as claimed in Claim 22, wherein said solvent exhibits a boiling point of at least 100°C.

40. (Previously Presented) The process as claimed in Claim 22, wherein the reaction is carried out at a pressure such that, at the reaction temperature, the solvent is boiling.

41. (Previously Presented) The process as claimed in Claim 22, wherein the solvent is miscible with hydrofluoric acid and does not react with the carbamoyl fluoride.

42. (Previously Presented) The process as claimed in Claim 22, wherein said carbamoyl fluoride is introduced into the solvent with hydrofluoric acid.

43. (Previously Presented) The process as claimed in Claim 22, wherein the addition of the carbamoyl fluoride to the solvent is carried out at a rate such that, in the ten final 90% of the reaction duration taking place below 100°C, the molar ratio of hydrofluoric acid to isocyanate (HF acid/aromatic isocyanate) is always less than 0.5.

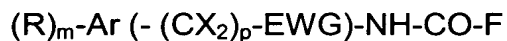
44. (Previously Presented) The process as claimed in Claim 22, wherein the carbamoyl fluoride substrate comprises an aliphatic carbon, that is sp^3 hybridized, bearing at least two fluorines.

45. (Previously Presented) The process as claimed in Claim 44, wherein said aliphatic carbon bearing at least two fluorines is a benzyl carbon and is directly attached to an aromatic ring.

46. (Previously Presented) The process as claimed in Claim 45, wherein said aromatic ring is that bearing the nitrogen of the carbamoyl functional group.

47. (Previously Presented) The process as claimed in Claim 22, wherein the reaction mixture comprises less than 1%, with respect to the starting carbamoyl fluoride, expressed as moles, of impurities exhibiting a chlorine in the benzyl position.

48. (Previously Presented) The process as claimed in Claim 22, wherein the carbamoyl fluoride corresponds to the formula:



where:

- Ar is an aromatic residue;
 - the X units, which are alike or different, represent a fluorine or a radical of formula C_nF_{2n+1} with n an integer at most equal to 5;
 - p represents an integer at most equal to 2;
 - EWG represents a hydrocarbonaceous group or an electron-withdrawing group, the optional functional groups of which are inert under the reaction conditions;
- the total carbon number of $-(CX_2)_p-EWG$ is between 1 and 15;
- m is 0 or an integer from 1 to 4;
 - R represents alike or different radicals comprising halogens or hydrocarbonaceous radicals.

49. (Previously Presented) The process as claimed in Claim 22, wherein the solvent is a chlorobenzene.

50. (Previously Presented) The process as claimed in Claim 49, wherein the chlorobenzene is a monochlorobenzene, a dichlorobenzene or a trichlorobenzene.